



PTO/SB/08B (08-03)

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/785,274		
Filing Date	February 24, 2004		
First Named Inventor	Shang-Tian Yang		
Art Unit	1651		
Examiner Name	LILLING		
Sheet	1	of	6
		Attorney Docket Number	OSU 0003 PA/41096.8/01ID85F

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
H.S.Y.		TALABARDON ET AL., "Acetic Acid Production from Lactose by an Anaerobic Thermophilic Coculture Immobilized in a Fibrous-Bed Bioreactor", Biotechnol. Prog. 2000, 16, pp. 1008-1017	
		HUANG ET AL., "Acetate Production from Whey Lactose Using Co-Immobilized Cells of Homolactic and Homoacetic Bacteria in a Fibrous-Bed Bioreactor", Biotechnology and Bioengineering, Vol. 60, No. 4, Nov. 20, 1998, pp. 498-507	
		YANG ET AL., "Production of Cell-Free Xanthan Fermentation Broth by Cell Adsorption on Fibers", Biotechnol. Prog. 1998, 14, pp. 259-264	
		YANG ET AL., "A Novel Recycle Batch Immobilized Cell Bioreactor for Propionate Production from Whey Lactose", Biotechnology and Bioengineering, Vol. 45, (1995), pp. 379-386	
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		ZEMEK ET AL., "Crosslinked polyethylenimine: an enzyme carrier with spacers of various lengths introduced in crosslinking reaction", Enzyme Microb. Technol., 1982, Vol. 4, July, pp. 233-238	
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H.S.Y.		YANG ET AL., "A Dynamic Light Scattering Study of β -Galactosidase: Environmental Effects on Protein Conformation and Enzyme Activity", Biotechnol. Prog. 1994, 10, pp. 525-531	

Examiner Signature	<i>Hebat S. Lilling</i>	Date Considered	08/28/04
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				Examiner Name	LILLIAN W
Sheet	2	of	6	Attorney Docket Number	OSU 0003 PA/41096.8/01ID85F

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HJF		KUMAR ET AL., "Whole blood glucose determination using glucose oxidase immobilized on cotton cheese cloth", Analytica Chimica Acta 338 (1997), pp. 135-140		
HJF		KAMATH ET AL., "Urease Immobilized on Polyethyleneimine Cotton Cloth", Applied Biochemistry and Biotechnology, Vol. 19, 1988, pp. 251-258		
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		D'SOUZA ET AL., "Cloth Bioreactor containing yeast cells immobilized on cotton cloth using polyethyleneimine", Appl Microbiol Biotechnol (1988), 29, pp. 136-140		
		SAKO ET AL., "Recent progress on research and applications of non-digestible galacto-oligosaccharides", International Dairy Journal 9 (1999), pp. 69-80		
		PLAYNE ET AL., "1. COMMERCIALLY AVAILABLE OLIGOSACCHARIDES", Bulletin of the IDF 313, pp. 10-22, 1996		
		SHIN ET AL., "Continuous production of galacto-oligosaccharides from lactose by <i>Bullera singularis</i> β -galactosidase immobilized in chitosan beads", Process Biochemistry, Vol. 33, No. 8, 1998, pp. 787-792		
		FODA ET AL., "Continuous production of oligosaccharides from whey using a membrane reactor", Process Biochemistry 35 (2000), pp. 581-587		
HJF		YANG ET AL., "Novel Products and New Technologies for Use of a Familiar Carbohydrate, Milk Lactose", Journal of Dairy Science, Vol. 78, No. 11, 1995, pp. 2541-2562		

Examiner Signature	<i>Debuteller</i>	Date Considered	08/28/02
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				Application Number	10/785,274
				Filing Date	February 24, 2004
				First Named Inventor	Shang-Tian Yang
				Art Unit	1657
				Examiner Name	LILLY WANG
Sheet	3	of	6	Attorney Docket Number	OSU 0003 PA/41096.8/01ID85F

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
<i>Sff</i>		BFRGER ET AL., "OLIGOSACCHARIDES SYNTHESIS BY FREE AND IMMOBILIZED β -GALACTOSIDASES FROM THERMUS AQUATICUS YT-1", Biotechnology Letters, Vol. 17, No. 10. (Oct. 1995), pp. 1077-1080			
<i>Sff</i>		MOZAFFAR ET AL., "Effect of glutaraldehyde on oligosaccharide production by β -galactosidase from Bacillus circulans", Appl Microbiol Biotechnol (1987) 25, pp. 426-429			
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		SHEU ET AL., "Production of galactooligosaccharides by β -galactosidase immobilized on glutaraldehyde-treated chitosan beads", Biotechnology Techniques, Vol. 12, No. 4, April 1998, pp. 273-276			
		KMINKOVA ET AL., "IMMOBILIZATION OF MOLD BETA-GALACTOSIDASE", Collection Czechoslovak Chem. Commun. (Vol. 53), (1988), pp. 3214-3219			
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		PRENOSIL ET AL., "Formation of Oligosaccharides during Enzymatic Lactose: Part I: State of Art", Biotechnology and Bioengineering, Vol. 30, (1987), pp. 10-19-1025			
		PEDERSEN ET AL., "Enzyme Adsorption in Porous Supports: Local Thermodynamic Equilibrium Model", Biotechnology and Bioengineering, Vol. XXVII, (1985), pp. 961-971			
<i>RJ</i>		DISSING ET AL., "Polyelectrolyte complexes as vehicles for affinity precipitation of proteins", Journal of Biotechnology, 52, (1996), pp. 1-10			

Examiner Signature	<i>Debra Bell</i>	Date Considered	08/25/06
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Substitute for form 1449/PTO				Complete if Known	
				Application Number	10/785,274
				Filing Date	February 24, 2004
				First Named Inventor	Shang-Tian Yang
				Art Unit	165
				Examiner Name	LILUWZ
Sheet	4	of	6	Attorney Docket Number	OSU 0003 PA/41096.8/01ID85F

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
<i>SJY</i>		PRENOSIL ET AL., "Formation of Oligosaccharides during Enzymatic Lactose Hydrolysis and Their Importance in a Whey Hydrolysis Process: Part II: Experimental", Biotechnology and Bioengineering, Vol. 30, (1987), pp. 1026-1031			
<i>SJY</i>		RUGH, "A Comparison of the Formation of Intermediary Products During Lactose Hydrolysis with Free and Immobilized Thermophilic Lactase", Applied Biochemistry and Biotechnology 7 (1982), pp. 27-29			
		PRENOSIL ET AL., "SCALE-UP OF MEMBRANE FIXED ENZYME REACTORS: MODELLING AND EXPERIMENTS", Desalination, 53 (1985), pp. 265-278			
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		ISGROVE ET AL., "Enzyme immobilization on nylon-optimization and the steps used to prevent enzyme leakage from the support", Enzyme and Microbial Technology 28 (2001), pp. 225-232			
<i>M</i>		IWASAKI ET AL. "Galacto-oligosaccharide Production from Lactose by an Enzymic Batch Reaction Using β -Galactosidase", Process Biochemistry, Vol.31, No. 1, 1996, pp. 69-76			

Examiner Signature	<i>Shang-Tian Yang</i>	Date Considered	08/22/00
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				Application Number	10/785,274
				Filing Date	February 24, 2004
				First Named Inventor	Shang-Tian Yang
				Art Unit	1657
				Examiner Name	LILLING
Sheet	5	of	6	Attorney Docket Number	OSU 0003 PA/41096.8/01D85F

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WTF		MONSAN ET AL., "Enzymatic synthesis of oligosaccharides", FEMS Microbiology Reviews 16, (1995), pp.187-192				
		YANG ET AL., "Production of Galacto-Oligosaccharides from Lactose by Immobilized β -Galactosidase" In Applied Biocatalysis in Specialty Chemicals and Pharmaceuticals, ACS Symposium 776, American Cancer Society, Washington, DC, Chapter 9, pp. 131-154 (2000)				
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WTF		SUOMINEN ET AL., "Enhanced recovery and purification of Aspergillus glucoamylase from Saccharomyces cerevisiae by the addition of poly(aspartic acid) tails", Enzyme Microb. Technol., 15, 1998, pp.593-600				

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<i>SLY</i>		PARKER ET AL., "Recovery of a Charged-Fusion Protein from Cell Extracts by Polyelectrolyte Precipitation", Biotechnology and Bioengineering, Vol. 36, (1990), pp. 467-475				
		ZHAO ET AL., Polyelectrolyte precipitation of β -galactosidase fusions containing poly-aspartic acid tails", Journal of Biotechnology , 14 (1990), pp. 273-284				
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		HOWLETT ET AL., "CARBONYLDIMIDAZOLE ACTIVATION OF A RAYON/POLYESTER CLOTH FOR COVALENT IMMOBILIZATION OF PROTEINS", Biotechnology Techniques, Vol. 5, No. 5, 1991, pp. 395-400				
<i>SLY</i>		MOZAFFAR ET AL., "Purification and Properties of β -Galactosidases from <i>Bacillus circulans</i> ", Agric. Biol. Chem, 48 (12), 1984, pp. 3053-3061				

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